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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/582,123	06/07/2006	Hiromasa Nomura	52433/850	1778

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EXAMINER	
LAVILLA, MICHAEL E	

ART UNIT	PAPER NUMBER
1794	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/582,123	NOMURA ET AL.	
	Examiner	Art Unit	
	Michael La Villa	1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *30 November 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-6* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *20070921*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

2. A person shall be entitled to a patent unless –

3. (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Yano et al. JP 2001-348678 for the reasons of record in the Office Action mailed on 27 June 2007.

5. Claims 2 and 5 are rejected under 35 U.S.C. 102(b) as being anticipated by Sato et al. JP 04-032577 for the reasons of record in the Office Action mailed on 27 June 2007.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

   (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

   1. Determining the scope and contents of the prior art.
   2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yano et al. JP 2001-348678 for the reasons of record in the Office Action mailed on 27 June 2007.

9. Claims 2 and 5 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Sato et al. JP 04-032577. Sato et al. discloses a feature wherein a porous film comprising metal oxides or metal hydroxides is formed upon the surface of an aluminum member or an aluminum alloy member, and then a resin coating film is coated thereupon. Therein, Sato et al. also presents methods similar to the mechanical grinding method and the chemical etching method set forth on page 7 of the description in the present application, which are methods for forming pits in the surface of a layer. See Sato et al. (Abstract; claims; and pages 7-12) (translation). With respect to Claim 5, the claimed dimensions would be expected to be inherently achieved in view of the similar manner of making articles employed by Sato et al. and applicant. To the extent that Sato teaches methods other than liquid phase product-by-process for making the articles of Sato, it would be expected that the resulting products would be identical to or substantially identical to those of applicant, since applicant describes at page 14 of the Specification and elsewhere that resulting articles that have comparable pit structures are suitable notwithstanding different methods of achieving those pits and since applicant

teaches using methods other than liquid phase process, such as the methods of Sato, for achieving pits.

10. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Sato et al. JP 04-032577 for the reasons of record in the Office Action mailed on 27 June 2007.

11. Claims 1 and 6 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Makishima et al. USPN 3,900,630. Makishima teaches a sprayed coating comprised of film of oxide of silicon that also contains oxide of titanium, wherein the film contains cracks and may be further coated with organic resin. See Makishima et al. (Abstract; Figures 1, 3, and 6; col. 3, lines 13-31; col. 5, lines 36-67; Examples; and Claims). In the event that this method of application is not considered within the scope of the claimed liquid process product-by-process limitation, the resulting articles of Makishima would nevertheless be expected to be identical or substantially identical to those claimed since applicant has described at page 14 of the Specification and elsewhere that resulting articles that have comparable crack structures are suitable notwithstanding different methods of achieving those cracks and since applicant teaches using methods other than liquid phase process for achieving cracks.

Claim Rejections - 35 USC § 112

12. The following is a quotation of the second paragraph of 35 U.S.C. 112:

13. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

14. Claims 1-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

15. Regarding Claims 1-3, it is unclear what is the claim preamble and what is the structural limitation of the claim. In other words, it is unclear what is the relationship between the phrase "precoated metal sheet" and "a precoating comprising." Does this "precoating" define the "precoated metal sheet," or is it an additional structural element of the claimed article? Is a transition word missing?

16. The following is a quotation of the first paragraph of 35 U.S.C. 112:

17. The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

18. Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Regarding Claims 1-3, it is unclear how the originally filed Specification supports the claims as now presented. The cited portion at page 14 describes the claimed product-by-process limitation in the context of specific metal sheet materials and

systems. In fact, the disclosure teaches that achieving the claimed cracks and pits was not successful by the claimed product-by-process limitation for other materials. Therefore, it is unclear how the proposed claims, which are not limited to those specific materials and systems that were successful, derive antecedent support from the original disclosure. It is furthermore unclear how applicant considers the Specification to support the dependent claims that relate to specific crack and pit dimensions and oxide/hydroxide materials.

19. Claims 1-6 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for specific materials as set forth at page 14 of the Specification, does not reasonably provide enablement for any metal sheet and coating system. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to practice the invention commensurate in scope with these claims. The Specification at page 14 refers to achieving crack and pit structures for specific metal sheet materials by the claimed product-by-process limitations and that achieving these structures for other specific metal sheet materials was unsuccessful. It is therefore unclear how applicant has enabled the full scope of the claimed invention which would encompass materials other than those classes of materials for which applicant has demonstrated success since there is serious doubt that the claimed product-by-process step would be successful with respect materials other than those that demonstrated as such.

Response to Amendment

20. In view of applicant's amendments and arguments, applicant traverses the claim objection of the Office Action mailed on 27 June 2007. Objection is withdrawn.

21. In view of applicant's amendments and arguments, applicant traverses the section 112, second paragraph rejection of the Office Action mailed on 27 June 2007. Rejection is withdrawn.

22. In view of applicant's amendments and arguments, applicant traverses the section 102 rejection over Yano and the section 103 rejection over Yano of the Office Action mailed on 27 June 2007. Applicant argues that Yano's metal sheet and plated layer do not contain applicant's claimed features. Yano's plated metal sheet can be identified with the claimed "metal sheet" and Yano's chemical conversion coating can be identified with the claimed oxide and/or hydroxide of metal. In this manner pits are present in the metal sheet surface and cracks are present in the film of oxide and/or hydroxide of metal. The chemical conversion coating is applied by a liquid phase process. Rejections are maintained.

23. In view of applicant's amendments and arguments, applicant traverses the section 102 rejection over Sato and the section 103 rejection over Sato of the Office Action mailed on 27 June 2007. Applicant argues that Sato does not teach forming pits by the claimed product-by-process limitation. Sato teaches etching and surface roughening prior to oxide film deposition, which treatment would be expected to give rise to pits on the metal surface. The oxide film layer deposition conditions include acid/chemical treatment that would be expected to

give rise to pit structures on the metal sheet surface in the course of forming the metal oxide layer. Rejections are maintained.

Conclusion

24. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

25. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

26. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael La Villa whose telephone number is (571) 272-1539. The examiner can normally be reached on Monday through Friday.

27. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rena Dye can be reached on (571) 272-3186. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

28. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael La Villa/
Michael La Villa
12 February 2008
Primary Examiner, Art Unit 1794